

ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MICHAEL ABRACZINSKAS
Director



NORTH CAROLINA
Environmental Quality

XXXX XX, 2020

Mr. Mark Lundblad
Plant Manager
SGL Carbon LLC
307 Jamestown Road
Morganton, NC 28655

SUBJECT: Air Quality Permit No. 03287T39
Facility ID: 1200028
SGL Carbon LLC
Morganton, Burke County, North Carolina
Fee Class: Title V
PSD Class: Major

Dear Mr. Lundblad:

In accordance with your completed Air Quality Permit Application for a renewal of your Title V permit received February 26, 2020, we are forwarding herewith Air Quality Permit No. Air Quality Permit No. 03287T38 to SGL Carbon LLC, Jamestown Road, Morganton, Burke, North Carolina, authorizing the construction and operation of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 02Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

As the designated responsible official, it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the conditions of the attached permit that are applicable to that particular emission source.

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with both the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.



North Carolina Department of Environmental Quality | Division of Air Quality
217 West Jones Street | 1641 Mail Service Center | Raleigh, North Carolina 27699-1641
919.707.8400

Mr. Mark Lundblad
XXXX XX, 2020
Page 2

You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of NCGS 143-215-108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of NCGS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in NCGS 143-215.114A and 143-215.114B.

Burke County has not triggered increment tracking under PSD for any pollutants, so no tracking is required.

This Air Quality Permit shall be effective from XXXX XX, 2020 until XXXX XX, 2025, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein. Should you have any questions concerning this matter, please contact David.B.Hughes at David.B.Hughes@ncdenr.gov or 919-707-8411.

Sincerely yours,

William D. Willets, P.E., Chief, Permitting Section
Division of Air Quality, NC DEQ

Enclosure

c: Kelly Fortin, US EPA (Permit and review)
Asheville Regional Office
Central Files
Connie Horne, cover page only

ATTACHMENT to Cover Letter to Permit No. 03287T39

Insignificant Activities per 15A NCAC 02Q .0503(8)

Emission Source ID	Emission Source Description
I-Delump	Delumper hood
I-EXTOIL.A and I-EXTOIL.B	Two (2) 12,000 gallon extrusion oil tanks
I-IF01.1 through I-IF01.5 and I-IF02.1 through I-IF02.5	Ten electric induction graphitizing furnaces with nitrogen purging system
I-Kiln	One electrically heated softwood lumber kiln (10' x 10' x 12')
I-Oilheaters.1 through I-Oilheaters.4 (MACT DDDDD)	Four natural gas-fired hot oil heaters (1.269 million Btu per hour maximum heat input capacity, each)
I-PIOperations	Pitch impregnation autoclaves and liquid ring vacuum pump
I-Pitchtanks	Pitch tank maintenance operations
I-PTWT	Pitch Test Weigh Tank
I-PWT	Pitch Weigh Tank
I-Railcar	Pitch railcar unloading
I-STK.13	10,000 gallon coal tar pitch and petroleum pitch storage tank (Tank No. 13)
I-STK.26	10,000 gallon coal tar pitch and petroleum pitch storage tank (Tank No. 26)
I-STK.27	10,000 gallon coal tar pitch and petroleum pitch storage tank (Tank No. 27)
I-STK.32	10,000 gallon coal tar pitch and petroleum pitch storage tank (Tank No. 32)
I-STK.33	10,000 gallon coal tar pitch and petroleum pitch storage tank (Tank No. 33)
I-STK.34	10,000 gallon coal tar pitch and petroleum pitch storage tank (Tank No. 34)
I-STK.51	1,000 gallon coal tar pitch and petroleum pitch storage tank (Tank No. 51)
I-Weld	Miscellaneous welding operations
IA-CT	Cooling towers

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement.
2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 02D .1100, "Control of Toxic Air Pollutants," or 15A NCAC 02Q .0711, "Emission Rates Requiring a Permit".
3. For additional information regarding the applicability of MACT or GACT see the DAQ page titled "Specific Permit Conditions Regulatory Guide." The link to this site is as follows: <http://deq.nc.gov/about/divisions/air-quality/air-quality-permits/specific-permit-conditions-regulatory-guide>

Summary of Changes to Permit

The following changes were made to the SGL Carbon LLC, Morganton, Air Permit No. 03287T38:

Page(s)	Section	Description of Change(s)
Cover Letter	N/A	-Updated cover letter with application number, permit numbers, dates, fee class, and PSD increment statement.
Permit Cover	N/A	-Inserted new issuance and complete application date, application number, facility information.
	Section 1 Table	-Updated control device for emission source ES-6B to One Fabric Filter (200 square feet of filter area) (ID No. CD-6B).
	2.1 A	-Updated permit language to match current shell version of TV Permit Conditions.
	2.1 B	-Updated permit language to match current shell version of TV Permit Conditions.
	2.1 C	-Updated permit language to match current shell version of TV Permit Conditions.
	2.1 D	-Updated permit language to match current shell version of TV Permit Conditions.
	2.1 E	-Updated permit language to match current shell version of TV Permit Conditions.
	2.1 F	-Updated permit language to match current shell version of TV Permit Conditions.
	2.1 G	-Updated permit language to match current shell version of TV Permit Conditions.
	2.1 H	-Updated permit language to match current shell version of TV Permit Conditions.
	2.1 I	-Updated permit language to match current shell version of TV Permit Conditions.
	2.1 J	-Updated permit language to match current shell version of TV Permit Conditions.
	2.1 K	-Updated permit language to match current shell version of TV Permit Conditions.
	2.1 L Table	-Removed conditions 2.2 B and 2.2 C, as the requirements of these conditions ended with the commencement of normal operation of Rectifier No. 2, which occurred on August 17, 2018 -Moved 15A NCAC 02D .0530(u): Use of Projected Actual Emissions to Avoid Applicability of Prevention of Significant Deterioration Requirements from Section 2.2 B.
	2.1 L	-Updated permit language to match current shell version of TV Permit Conditions.
	2.1 L.3	-Moved 15A NCAC 02D .0530(u): Use of Projected Actual Emissions to Avoid Applicability of Prevention of Significant Deterioration Requirements from Section 2.2 B.
	2.1 L.3.a	-Removed the language stating “beginning with the commencement of the normal operation of Rectifier No. 2”, as this occurred on August 17, 2018, and this language is no longer needed.

Page(s)	Section	Description of Change(s)
	2.1 M Table	-Removed condition 2.2 B, as the requirements of this condition ended with the commencement of normal operation of Rectiformer No. 2, which occurred on August 17, 2018
	2.1 M	-Updated permit language to match current shell version of TV Permit Conditions.
	2.1 N	-Updated permit language to match current shell version of TV Permit Conditions.
	2.1 O	-Updated permit language to match current shell version of TV Permit Conditions.
	2.1 P	-Updated permit language to match current shell version of TV Permit Conditions.
	2.1 Q.5	-Updated MACT 5D language from Joe Voelker for two natural gas-fired extrusion boilers (ID Nos. ES-CB230 and ES-PB-233).
	2.2 A.2.b	-Added toxic air pollutant dispersion modeling analysis date and approval by AQAB memo date language.
---	2.2 B	-Removed this condition, as the requirements of this condition ended with the commencement of normal operation of Rectiformer No. 2, which occurred on August 17, 2018
---	2.2 C	-Removed this condition, as the requirements of this condition ended with the commencement of normal operation of Rectiformer No. 2, which occurred on August 17, 2018
	2.2 B	-Replaced 2.2 E. with 2.2 B.
	2.2 C	-Replaced 2.2 F. with 2.2 C.
	Section 3.0 General Conditions	-Updated shell conditions to (v5.5 08/25/2020).



AIR QUALITY PERMIT

Permit No.	Replaces Permit No.	Effective Date	Expiration Date
03287T39	03287T38	XXXX XX, 2020	XXXX XX, 2025

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 02D and 02Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 02Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

Permittee: **SGL Carbon LLC**

Facility ID: **1200028**

Facility Site Location: **307 Jamestown Road**
City, County, State, Zip: **Morganton, Burke County, North Carolina, 28655**

Mailing Address: **307 Jamestown Road**
City, State, Zip: **Morganton, North Carolina 28655**

Application Number: **1200028.20A**
Complete Application Date: **February 26, 2020**

Primary SIC Code: **3624**

Division of Air Quality, **Asheville Regional Office**
Regional Office Address: **2090 US Highway 70**
Swannanoa, North Carolina 28778

Permit issued this the XXnd day of XXXX, 2020.

William D. Willets P.E., Chief, Air Permitting Section
By Authority of the Environmental Management Commission

Table of Contents

SECTION 1: PERMITTED EMISSION SOURCE (S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE (S) AND APPURTENANCES

SECTION 2: SPECIFIC LIMITATIONS AND CONDITIONS

- 2.1 - Emission Source(s) Specific Limitations and Conditions (Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)
- 2.2 - Multiple Emission Source(s) Specific Limitations and Conditions (Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)
- 2.3 - Permit Shield for Nonapplicable Requirements

SECTION 3: GENERAL PERMIT CONDITIONS

ATTACHMENT

List of Acronyms

SECTION 1 - PERMITTED EMISSION SOURCE (S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE (S) AND APPURTENANCES

The following table contains a summary of all permitted emission sources and associated air pollution control devices and appurtenances:

Page No(s).	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Extrusion Department - Building 2				
10	ES-1A.1 ES-1A.2	Two extrusion fines milling operations utilizing Raymond Mills (Nos. RM14 and RM15), respectively	CD-1A-DC2186	One fabric filter (1,588 square feet of filter area)
13,57	ES-1B CAM	Three extrusion mix coolers: -No. 1h-02S1SC (System #1 South Cooler) -No. 1h-02S2SC (System #2 South Cooler) -No. 1h-02S1NC (System #1 North Cooler) One molding operation (No. 1h-15AS2EH)	CD-1B-02-ESP	One electrostatic precipitator (4,877 square feet of collecting plate area)
10,58	ES-1C CAM	Building #2 materials handling operations	CD-1C-DC225	One fabric filter (2,120 square feet of filter area)
10,58	ES-1D	System #2 Milling Process/Material Storage consisting of: -Raw coke handling operations (No. 1F) -Two bin drawoffs (Nos. BD201 and 202) -One conveyor screw (No. CS257) -One double roll crusher (No. DRC263) -One hammermill (No. HM260) -One Rotex elevator (No. RX261) -One Rotex screen (No. RX262) -The exhausts from five weigh scale collection sources (Nos. SC201 through SC205)	NA	NA
10, 58	ES-1E.1 ES-1E.2	-System #1 extrusion mixer -System #2 extrusion mixer	CD-1D-DC254	One fabric filter (6,426 square feet of filter area)
10, 58	ES-1E.3 ES-1E.4 ES-1E.5 ES-1E.6 through ES-1E.10	-System #1 milling operations -System #1 weigh car -System #1 scale bin exhausts -Five weigh car collection sources	CD-02-DFT3-36	One cartridge-type filter (9,144 square feet of filter area)

Page No(s).	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
10,58	ES-1G CAM	Scrap stock crushing operation	CD-1G-DC220	One fabric filter (3,848 square feet of filter area)
15	ES-1H.1 ES-1H.2	Two pitch storage tanks (100,000 gallons capacity each) and associated pitch loading operations	CD-1H-DR290A	One natural gas-fired thermal oxidizer (1.6 million Btu per hour maximum heat input capacity)
17	ES-1I.1 through ES-1I.22	Twenty-two 1,000 pound extrusion mixers [Sixteen System #1 (Nos. 1 through 16) and six System #2 (Nos. 17 through 22)]	NA	NA
18,57	ES-1J.1 through ES-1J.3 CAM	Three 1,000 pound Sigma mixers (2,000 pounds per hour total maximum design process weight rate) with associated internally vented fabric filters, one each	CD-1B-02-ESP	One electrostatic precipitator (4,877 square feet of collecting plate area)
20,57	ES-1L.1 ES-1L.2 CAM	One Sigma Blade Mixer One rotary cooler	CD-1B-02-ESP	One electrostatic precipitator (4,877 square feet of collecting plate area)
20,61	ES-1M-A	Porous Carbon Processing – Primary Milling (100 HP Mill) and associated product collector and vibrating screener (No. 1)	CD-1M-APC	One fabric filter (1,104 square feet of filter area)
		One coke day bin (No. 2) One magnetic grate (No. 3) Fines and oversize coke collection bins (No. 4) One control feeder hopper (No. 5)	CD-1M-AFR	One fabric filter (458 square feet of filter area)
20,61	ES-1M-B	Porous Carbon Processing – Secondary Milling (20 HP Mill) and associated product collector and vibrating screener (No. 1)	CD-1M-BPC	One fabric filter (372 square feet of filter area)
			CD-1M-BFR	One fabric filter (458 square feet of filter area)

Page No(s).	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
		Crushing equipment (No. 2) Mix hoppers (No. 3) One fully enclosed tubular conveyor (No. 4) One surge hopper (No. 5) Fines and oversize mix ball collection bins (No. 6) One collection hopper and weigh feeder (No. 7) One V-blender and dispense hopper (No. 8)	NA	NA
Baking Department				
23,58	ES-2A CAM	One steel shot blast electrode cleaning machine (Building 56)	CD-2A-DC-5624	One fabric filter (1,260 square feet of filter area)
23,58	ES-2B CAM	One small-round cleaning operation and media preparation serving baking furnace Nos. 10 through 19 (Building 13)	CD-2B-DC427	One fabric filter (3,090 square feet of filter area)
23,58	ES-2C ES-2M CAM	Two steel shot blast electrode cleaning operations (Building 47)	CD-2C-DC425	One cartridge-type fabric filter (4,944 square feet of filter area)
28	ES-02D-50 through ES-02D-52	Three car bottom-type natural gas-fired carbon electrode baking/rebaking furnaces (twelve 1.69 million Btu per hour maximum heat input capacity burners each)	CD-02D-55F	One natural gas-fired thermal oxidizer (6.5 million Btu per hour maximum heat input capacity)

Page No(s).	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
28	ES-2E-57F61 ES-2E-57F62 through ES-2E-57F65 ES-2E-57F66 and ES-2E-57F67	One natural gas-fired pit-type baking/rebaking furnace (twenty-four 0.5 million Btu per hour maximum heat input capacity and six 0.9 million Btu per maximum hour heat input capacity burners) Four natural gas-fired pit-type carbon electrode baking furnaces (six 2.7 million Btu per hour maximum heat input capacity and three 1.03 million Btu per hour maximum heat input capacity burners each, all located in Building 57) Two natural gas-fired pit type carbon electrode baking/rebaking furnaces (nine 1.50 million Btu per hour maximum heat input capacity and three 0.33 million Btu per hour maximum heat input capacity burners each, in located in Building 5)	CD-2E-57F61 CD-2E-57F62 CD-2E-57F63 CD-2E-57F64 CD-2E-57F65 CD-2E-57F66 CD-2E-57F67	Seven natural gas-fired thermal oxidizer (5.4, 3.1, 3.1, 3.1, 5.4, 4.9, and 4.9 million Btu per hour maximum heat input capacity, respectively)
25,58	ES-2F CAM	Furnace packing media recycling processes (Building 55)	CD-2F-DC5524	One fabric filter (6,500 square feet of filter area)
28	ES-2H-10 through ES-2H-19	Ten natural gas direct-fired recirculation baking furnaces with movable hoods (16.38 million Btu per hour maximum heat input capacity, each)	CD-2H-04E4	One direct-flame natural gas-fired thermal oxidizer (16.38 million Btu per hour maximum heat input capacity)
25	ES-2I	Pit furnace Sagger handling operations	CD-2I-DC05	One cartridge-type fabric filter (12,192 square feet of filter area)
25	ES-2J01 ES-2J02	Two sand receiving silos	CD-BK-SR01 CD-BK-SR02	Two fabric filters (278 square feet of filter area, one each)
25	ES-2K	Rebaked stock cleaning operation	CD-02D-DC01	One cartridge-type fabric filter (8,128 square feet of filter area)
25, 58	ES-2L-DC05	Building No. 5 Sagger can unloading station	CD-2F-DC5524	One fabric filter (6,500 square feet of filter area)

Page No(s).	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Pitch Impregnation Department				
31	ES-4A-1 through ES-4A-4 ES-4A-5 through ES-4A-7	Four natural gas-fired pitch impregnation preheaters (1.69 million Btu per hour maximum heat input capacity, each) Three pitch tanks	CD-4A	One natural gas-fired thermal oxidizer (8.0 million Btu per hour maximum heat input capacity)
Graphite Department				
34,58	ES-5A CAM	Graphite Department Equipment consisting of: -By-products material bagging machine (No. BYP) -One small band saw (No. C16143) -One sample grinder (No. C2302) -Rail hoods (No. C2304) -One large cleaning machine (No. C2315) -One bucket elevator (No. C2330) -One chip bin hood (No. C2331) -One "L" core drill (No. C2346) -One "T" core drill (No. C2347) -One large band saw (No. C2348) -Miscellaneous graphite machining operations (No. MISC) consisting of: -Rahn-Mayer Lathe #2508 (No. 1) -Sirco PA36 Lathe #2574 (No. 2) -Beco Lathe (No. 3) -Gisholt Turret Lathe #2512 (No. 4) -20" American Tracer Lathe #2533 (No. 5) -20" American Lathe #2534 (No. 8) -Morris Radial Drill (No. 11) -Cincinnati Milling Machine #2560 (No. 12) -Band Saw (No. 13) -Do-All Band Saw #2506 (No. 14) -Do-All Band Saw (No. 15) -Laidlaw Band Saw #2561 (No. 16) -DeWalt Radial Cut-off Saw (No. 18) -Two Kingston Lathes (Nos. 19 and 20) -One custom cut-off saw (No. 21)	CD-5A-DC2324	One fabric filter (10,260 square feet of filter area)

Page No(s).	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
37,52, 53,54	ES-5E.1 through ES-5E.6	Six electric lengthwise graphitizing (LWG) furnaces (Building 24) with associated rectifier (No. 2) with nitrogen purging capability as batch demands warrant use	Control Option – HLM and CAG3 Product	
			CD-5E-S1a	One fabric filter (13,394 square feet of filter area)
			CD-5E-S1b	One RTO (1,500 degrees F minimum temperature)
			CD-5E-S1c	One packed tower scrubber (0.8 gpm minimum caustic solution injection rate)
			No Control Option – HLM or CAG3 Product	
			NA	NA
37,52, 53,54	ES-5E.7 through ES-5E.12	Six electric lengthwise graphitizing (LWG) furnaces (Building 24) with associated rectifier (No. 1) with nitrogen purging capability as batch demands warrant use	HLM or CAG3 Product	
			NA	NA
38,52, 59	ES-5I CAM	Packing media recycling process line		
38,52, 59	ES-5J CAM	Stock machining and conveying line	CD-5I-DC2474	One fabric filter (11,016 square feet of filter area)
38,52, 59	ES-5L CAM	LWG media crusher system (Building 10)	CD-5J-DC5803	One fabric filter (813 square feet of filter area)
38	ES-5M	Packed media silo	CD-5L-DC101	One fabric filter (1,829 square feet of filter area)

Page No(s).	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Finishing Department - Building 11				
41,59	ES-6A CAM	Graphite finishing operation	CD-6A-DC1164a CD-6A-DC1164b	One simple cyclone One fabric filter (8,652 square feet of filter area)
41,59	ES-6B CAM	Carpentry shop woodworking operation	CD-6B	One fabric filter (200 square feet of filter area)
Salvage Department - Building 25				
45	ES-7B.1 ES-7B.2	G&L Vertical Boring Mill Hill-Acme Grinder (No. 2547)	CD-7B-DC2502	One fabric filter (1,056 square feet of filter area)
45	ES-7C	Bullard Vertical Boring Mill (Building 25C) Bullard Mill #2526 (No. 9)	CD-7B-DC2502	One fabric filter (1,056 square feet of filter area)
Boilers				
47	ES-CB230 (MACT, Subpart DDDDD)	One natural gas-fired extrusion boiler (12.553 million Btu per hour maximum heat input capacity)	NA	NA
47	ES-PB-233 (NSPS, Subpart Dc; MACT, Subpart DDDDD)	One natural gas-fired extrusion boiler (12.553 million Btu per hour maximum heat input capacity)	NA	NA

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

2.1- Emission Source(s) and Control Devices(s) Specific Limitations and Conditions

The emission source(s) and associated air pollution control device(s) and appurtenances listed below are subject to the following specific terms, conditions, and limitations, including the testing, monitoring, recordkeeping, and reporting requirements as specified herein:

- A. Two extrusion lines milling operations (ID Nos. ES-1A.1 and ES-1A.2) with associated fabric filter (ID No. CD-1A-DC2186)**

Building #2 materials handling operations (ID No. ES-1C) with associated fabric filter (ID No. CD-1C-DC225)

System #2 Milling Process/Material Storage (ID No. ES-1D) consisting of:

- Raw coke handling operations (No. 1F)
- Two bin drawoffs (Nos. BD201 and BD202)
- One conveyor screw (No. CS257)
- One double roll crusher (No. DRC263)
- One hammermill (No. HM260)
- One Rotex elevator (No. RX261)
- One Rotex screen (No. RX262)
- The exhausts from five weigh scale collection sources (Nos. SC201 through SC205)
- System #1 and System #2 extrusion mixers (ID Nos. ES-1E.1 and ES-1E.2)

with associated fabric filter (ID No. CD-1D-DC254)

System #1 milling operations (ID No. ES-1E.3)

System #1 weigh car (ID No. ES-1E.4)

System # 1 scale bin exhausts (ID No. ES-1E.5)

Five weigh car collection sources (ID Nos. ES-1E.6 through ES-1E.10)

with associated cartridge-type filter (ID No. CD-02-DFT3-36)

One stock crushing operation (ID No. ES-1G) with associated fabric filter (ID No. CD-1G-DC220)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(for process rates less than or equal to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (for process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	40 percent opacity	15A NCAC 02D .0521
Particulate matter	(ID Nos. CD-1C-DC225, CD-1D-DC254, CD-1G-DC220, and CD-02-DFT3-36 only) See Section 2.2 C	15A NCAC 02D .0614

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources (ID Nos. ES-1A.1, ES-1A.2, ES-1C, ES-1D, ES-1E.1 through ES-1E.5, and ES-1G) shall not exceed an allowable emission rate as calculated by the following equations:

$$E = 4.10 \times P^{0.67} \quad (\text{for process rates less than or equal to 30 tons per hour}),$$
$$E = 55.0 \times P^{0.11} - 40 \quad (\text{for process rates greater than 30 tons per hour})$$

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from these sources (**ID Nos. ES-1A.1, ES-1A.2, ES-1C, ES-1D, ES-1E.1 through ES-1E.5, and ES-1G**) shall be controlled by the fabric filters (**ID Nos. CD-1A-DC2186, CD-1C-DC225, CD-1D-DC254, CD-02-DFT3-36 (cartridge-type), and CD-1G-DC220**) as described above. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. weekly external inspection of any pneumatic conveyors, screw conveyors, elevators, ductwork, and the fabric filters noting the structural integrity and visible emissions; and
 - ii. monthly preventative maintenance (PM) on the cartridge-type fabric filters (**ID No. CD-02-DFT3-36**) including checking filter cartridges, screw flights, drive units, pressure drop readings, checkerboard panel for any alarms and/or problems which may have been detected, checking for fatigue cracks in the collector housing and fan housing, checking pulse valves for proper operation, checking screw and rotary valves for proper operation, checking fan bearings, belts, and sheaves;
 - iii. monthly preventative maintenance (PM) on bag-type fabric filters (**ID Nos. CD-1A-DC2186, CD-1C-DC225, CD-1D-DC254, and CD-1G-DC220**) including recording pressure drop readings, checking collector housing and fan housing for cracks, checking blow down system, checking fan sheaves, belts, and bearings, checking screw conveyor for proper operation, checking pump valves for proper operation, checking bins for content levels; and
 - iv. annual internal inspections (for each 12 month period following the initial inspection) of each fabric filter noting the structural integrity and the condition of the filters. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork, fabric filters, and cartridge-type filter are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on any control device; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on any control device within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section(s) 2.1 A.1.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. ES-1A.1, ES-1A.2, ES-1C, ES-1D, ES-1E.1 through ES-1E.10, and ES-1G**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-1A.1, ES-1A.2, ES-1C, ES-1D, ES-1E.1 through ES-1E.10, and ES-1G**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
- i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02Q .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 A.2.a above.
- The Permittee shall be deemed to be in noncompliance with 15A NCAC 15A NCAC 02D .0521 if the required weekly observations are not conducted as required; if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made; or if “normal” is not established for these source(s) in the first 30 days following the effective date at this permit / of beginning operation.
- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 A.2.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

- B. Three extrusion mix coolers (ID No. ES-1B) consisting of:**
 -System #1 South Cooler (No. 1h-02S1SC),
 -System #2 South Cooler (No. 1h-02S2SC),
 -System #1 North Cooler (No. 1h-02S1NC), and
One molding operation (No. 1h15AS2EH)
with associated electrostatic precipitator (ID No. CD-1B-02-ESP)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(ID No. ES-1B) (for process rates less than or equal to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (for process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E =allowable emission rate in pounds per hour P =process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	(ID No. ES-1B) 40 percent opacity	15A NCAC 02D .0521
Toxic air pollutants	State-enforceable only See Section 2.2 A.3	15A NCAC 02Q .0711
Particulate matter	See Section 2.2 B	15A NCAC 02D .0614

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from this source (**ID No. ES-1B**) shall not exceed an allowable emission rate as calculated by the following equations:

$$E = 4.10 \times P^{0.67} \quad (\text{for process rates less than or equal to 30 tons per hour}),$$

$$E = 55.0 \times P^{0.11} - 40 \quad (\text{for process rates greater than 30 tons per hour})$$

Where E = allowable emission rate in pounds per hour
 P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from this source (**ID No. ES-1B**) shall be controlled by the electrostatic precipitator (**ID No. CD-1B-02-ESP**). To ensure compliance and that the proper number of plates are operating, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- a monthly visual inspection of the system ductwork and material collection unit for leaks; and
 - an annual (for each 12-month period following the initial inspection) internal inspection of the electrostatic precipitator's structural integrity including a complete internal cleaning of all internal structures and steam cleaning of all internal parts.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and electrostatic precipitator are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:

- i. the date and time of each recorded action;
- ii. the results of each inspection;
- iii. the results of any maintenance performed on the electrostatic precipitator; and
- iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on the electrostatic precipitator within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section(s) 2.1 B.1.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from this source (**ID No. ES-1B**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, once a week the Permittee shall observe the emission points of this source (**ID No. ES-1B**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12-minutes is below the limit given in Section 2.1 B.2.a above.
- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 B.2.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

C. Two pitch storage tanks and associated pitch loading operations (ID Nos. ES-1H.1 and ES-1H.2) with associated natural gas-fired thermal oxidizer (ID No. CD-1H-DR290A)

The following provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(for process rates less than or equal to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (for process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	40 percent opacity	15A NCAC 02D .0521
Volatile organic compounds	No applicable requirements	15A NCAC 02D .0949
Toxic air pollutants	State-enforceable only See Section 2.2 A.3	15A NCAC 02Q .0711

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources (ID Nos. ES-1H.1 and ES-1H.2) shall not exceed an allowable emission rate as calculated by the following equations:

$$E = 4.10 \times P^{0.67} \quad (\text{for process rates less than or equal to 30 tons per hour}),$$

$$E = 55.0 \times P^{0.11} - 40 \quad (\text{for process rates greater than 30 tons per hour})$$

Where E = allowable emission rate in pounds per hour

P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from these sources (ID Nos. ES-1H.1 and ES-1H.2) shall be controlled by one natural gas-fired thermal oxidizer (ID No. CD-1H-DR290A). To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- a monthly visual inspection of the system ductwork and material collection unit for leaks; and
 - an annual (for each 12-month period following the initial inspection) internal inspection of the primary heat exchanger and associated inlet/outlet valves to ensure structural integrity.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and thermal oxidizer are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- the date and time of each recorded action;
 - the results of each inspection;
 - the results of any maintenance performed on the thermal oxidizer; and
 - any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on the thermal oxidizer within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section(s) 2.1 C.1.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from these sources (**ID Nos. ES-1H.1 and ES-1H.2**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas in these sources (**ID Nos. ES-1H.1 and ES-1H.2**).

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. ES-1H.1 and ES-1H.2**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-1H.1 and ES-1H.2**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12-minutes is below the limit given in Section 2.1 C.3.a above.The Permittee shall be deemed to be in noncompliance with 15A NCAC 15A NCAC 02D .0521 if the required weekly observations are not conducted as required; if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made; or if “normal” is not established for these source(s) in the first 30 days following the effective date at this permit / of beginning operation.
- d. The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be

in noncompliance along with any corrective actions taken to reduce visible emissions; and
 iii. the results of any corrective actions performed.
 The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 C.3.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

D. 22 extrusion mixers (ID Nos. ES-1I.1 through ES-1I.22)

The following provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(for process rates less than or equal to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (for process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	40 percent opacity	15A NCAC 02D .0521

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources (**ID Nos. ES-1I.1 through ES-1I.22**) shall not exceed an allowable emission rate as calculated by the following equations:

$E = 4.10 \times P^{0.67}$ (for process rates less than or equal to 30 tons per hour), or
 $E = 55.0 \times P^{0.11} - 40$ (for process rates greater than 30 tons per hour)

Where E = allowable emission rate in pounds per hour
 P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 D.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. The Permittee shall maintain production records such that the process rates “P” in tons per hour, as specified by the formulas contained above can be derived and shall make these records available to a DAQ authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the production records are not maintained or the types of materials and finishes are not monitored.
- d. No reporting is required for particulate matter from these sources (**ID Nos. ES-1I.1 through ES-1I.22**).

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. ES-1I.1 through ES-1I.22**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 D.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-II.1 and ES-II.22**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
- take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12-minutes is below the limit given in Section 2.1 D.2.a above.
- The Permittee shall be deemed to be in noncompliance with 15A NCAC 15A NCAC 02D .0521 if the required weekly observations are not conducted as required; if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made; or if “normal” is not established for these source(s) in the first 30 days following the effective date at this permit / of beginning operation.
- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- the date and time of each recorded action;
 - the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - the results of any corrective actions performed.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 D.2.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

- E. Three Sigma 1,000-pound mixers (ID Nos. ES-1J.1 through ES-1J.3) with internally vented fabric filters, one each, used during initial raw material transfer and dry mixing and with associated electrostatic precipitator (ID No. CD-1B-02-ESP) used during evolution of pitch volatiles at appropriate temperatures (i.e., 120° to 150°C).**

The following provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(for process rates less than or equal to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (for process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E =allowable emission rate in pounds per hour P =process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521
Odor	State enforceable only See Section 2.2 A.1	15A NCAC 02D .1806
Toxic air pollutants	State-enforceable only See Section 2.2 A.3	15A NCAC 02Q .0711
Particulate matter	See Section 2.2 B	15A NCAC 02D .0614

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources (**ID Nos. ES-1J.1 through ES-1J.3**) shall not exceed an allowable emission rate as calculated by the following equations:

$$E = 4.10 \times P^{0.67} \quad (\text{for process rates less than or equal to 30 tons per hour), or}$$
$$E = 55.0 \times P^{0.11} - 40 \quad (\text{for process rates greater than 30 tons per hour})$$

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 E.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from these sources (**ID Nos. ES-1J.1 through ES-1J.3**) shall be controlled by internally vented fabric filters and one electrostatic precipitator (**ID No. CD-1B-02-ESP**) as described above. To ensure compliance and that the proper number of plates are operating, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
 - ii. an annual (for each 12-month period following the initial inspection) internal inspection of the electrostatic precipitator's structural integrity including a complete internal cleaning of all internal structures and steam cleaning of all internal parts.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and electrostatic precipitator are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on any control device; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on any control device within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section(s) 2.1 E.1.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. ES-1J.1 through ES-1J.3**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 E.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-1J.1 through ES-1J.3**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action take as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12-minutes is below the limit given in Section 2.1 E.2.a above. The Permittee shall be deemed to be in noncompliance with 15A NCAC 15A NCAC 02D .0521 if the required weekly observations are not conducted as required; if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made; or if “normal” is not established for these source(s) in the first 30 days following the effective date at this permit / of beginning operation.
- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 E.2.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

F. Porous Carbon Process consisting of:

- One sigma blade mixer (ID No. ES-1L.1) and rotary cooler (ID No. ES-1L.2) and associated electrostatic precipitator (ID No. CD-1B-02-ESP)**
- Primary milling (ID No. ES-1M-A) and associated fabric filters (ID No. CD-1M-APC and CD-1M-AFR)**
- Secondary milling (ID No. ES-1M-B) and associated fabric filters (ID No. CD-1M-BPC and CD-1M-BFR)**

The following provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(for process rates less than or equal to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (for process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521
Odor	(ID Nos. ES-1L.1 and ES-1L.2 only) State enforceable only See Section 2.2 A.1	15A NCAC 02D .1806

Regulated Pollutant	Limits/Standards	Applicable Regulation
Toxic air pollutants	(ID Nos. ES-1L.1 and ES-1L.2 only) State enforceable only See Section 2.2 A.3	15A NCAC 02Q .0711
Particulate matter	(ID No. CD-1B-02-ESP only) See Section 2.2 B	15A NCAC 02D .0614

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources (**ID Nos. ES-1L.1, ES-1L.2, ES-1M-A and ES-1M-B**) shall not exceed an allowable emission rate as calculated by the following equations:

$$E = 4.10 \times P^{0.67} \quad (\text{for process rates less than or equal to 30 tons per hour}), \text{ or}$$

$$E = 55.0 \times P^{0.11} - 40 \quad (\text{for process rates greater than 30 tons per hour})$$

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from these sources (**ID Nos. ES-1M-A and ES-1M-B**) shall be controlled by the fabric filters (**ID No. CD-1M-APC, CD-1M-AFR, CD-1M-BPC, and CD-1M-BFR**) as described above. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- weekly external inspection of any pneumatic conveyors, screw conveyors, elevators, ductwork, and the fabric filters noting the structural integrity and visible emissions; and
 - monthly preventative maintenance (PM) on bag-type fabric filters including recording pressure drop readings, checking collector housing and fan housing for cracks, checking blow down system, checking fan sheaves, belts, and bearings, checking screw conveyor for proper operation, checking pump valves for proper operation, checking bins for content levels; and
 - annual (for each 12-month period following the initial inspection) internal inspections of each fabric filter noting the structural integrity and the condition of the filters.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and fabric filters are not inspected and maintained.
- d. Particulate matter emissions from this source (**ID Nos. ES-1L.1 and ES-1L.2**) shall be controlled by the electrostatic precipitator (**ID No. CD-1B-02-ESP**) as described above. To ensure compliance and that the proper number of plates are operating, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- a monthly visual inspection of the system ductwork and material collection unit for leaks; and
 - an annual (for each 12-month period following the initial inspection) internal inspection, including a complete internal cleaning of all internal structures and steam cleaning of all internal parts.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and electrostatic precipitator are not inspected and maintained.

- e. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on any control device; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit the results of any maintenance performed on any control device within 30 days of a written request by the DAQ.
- g. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section(s) 2.1 F.1.c through e above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. ES-1L.1, ES-1L.2, ES-1M-A and ES-1M-B**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-1L.1, ES-1L.2, ES-1M-A and ES-1M-B**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action take as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 F.2.a above.
- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 F.2.c and d above postmarked on or before January 30 of each calendar year for the preceding

six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

G. One steel shot blast electrode cleaning machine (ID No. ES-2A) with associated fabric filter (ID No. CD-2A-DC-5624)

Two steel shot blast electrode cleaning operations (ID Nos. ES-2C and ES-2M) with associated cartridge-type fabric filter (ID No. CD-2C-DC425)

The following provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(for process rates less than or equal to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (for process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	(ID No. ES-2A only) 40 percent opacity (ID Nos. ES-2C and ES-2M only) 20 percent opacity	15A NCAC 02D .0521
Fugitive emissions	Work practice standards	15A NCAC 02D .0541
Particulate matter	See Section 2.2 C	15A NCAC 02D .0614

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources (**ID Nos. ES-2A, ES-2C, and ES-2M**) shall not exceed an allowable emission rate as calculated by the following equations:

$$E = 4.10 \times P^{0.67} \quad (\text{for process rates less than or equal to 30 tons per hour}), \text{ or}$$

$$E = 55.0 \times P^{0.11} - 40 \quad (\text{for process rates greater than 30 tons per hour})$$

Where E = allowable emission rate in pounds per hour
 P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 G.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from these sources (**ID Nos. ES-2A, ES-2C, and ES-2M**) shall be controlled by one fabric filter (**ID No. CD-2A-DC-5624**) and one cartridge-type fabric filter (**ID No. CD-2C-DC-425**) as described above. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- weekly external inspection of any pneumatic conveyors, screw conveyors, elevators, ductwork, fabric filter, and cartridge-type fabric filter noting the structural integrity and visible emissions;
 - monthly preventative maintenance (PM) on the cartridge-type fabric filter (**ID No. CD-2C-DC-425**) including checking filter cartridges, screw flights, drive units, pressure drop readings, checkerboard

panel for any alarms and/or problems which may have been detected, checking for fatigue cracks in the collector housing and fan housing, checking pulse valves for proper operation, checking screw and rotary valves for proper operation, checking fan bearings, belts, and sheaves;

- iii. monthly preventative maintenance (PM) on the bag-type fabric filter (**ID No. CD-2A-DC-5624**) including recording pressure drop readings, checking collector housing and fan housing for cracks, checking blow down system, checking fan sheaves, belts, and bearings, checking screw conveyor for proper operation, checking pump valves for proper operation, checking bins for content levels; and
- iv. annual internal inspections (for each 12-month period following the initial inspection) of each fabric filter noting the structural integrity and the condition of the filters.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork, fabric filter, and cartridge-type filter are not inspected and maintained.

- d. The Permittee may only operate one shot blast electrode cleaning operation (ID Nos. ES-2C and ES-2M) at any given time.
- e. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on any control device; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit the results of any maintenance performed on any control device within 30 days of a written request by the DAQ.
- g. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section(s) 2.1 G.1.c through e above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from this source (**ID No. ES-2A**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity.
- b. Visible emissions from these sources (**ID Nos. ES-2C and ES-2M**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 G.2.a or b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- d. To ensure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-2A, ES-2C, and ES-2M**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12-minutes is below the limit given in Section 2.1 G.2.a or b above.

The Permittee shall be deemed to be in noncompliance with 15A NCAC 15A NCAC 02D .0521 if the required weekly observations are not conducted as required; if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made; or if “normal” is not established for these source(s) in the first 30 days following the effective date at this permit / of beginning operation.

- e. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 G.2.d and e above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. 15A NCAC 02D .0541: CONTROL OF EMISSIONS FROM ABRASIVE BLASTING

- a. The Permittee shall ensure that any abrasive blasting operation conducted outside or conducted indoors and vented to the atmosphere is performed in accordance with the requirements set forth in 15A NCAC 02D .0521 “Control of Visible Emissions.” For the purposes of this Rule, the visible emissions readings for the abrasive blasting performed outside a building shall be taken at a spot approximately 1 meter above the point of abrasive blasting with a viewing distance of approximately 5 meters.
- b. An abrasive blasting conducted under one of the following conditions is not required to be conducted within a building. Otherwise, all abrasive blasting operations shall be conducted within a building:
 - i. when the item to be blasted exceeds 8 feet in any dimension;
 - ii. when the surface being blasted is situated at its permanent location or not further away from its permanent location than is necessary to allow the surface to be blasted; or
 - iii. when the abrasive blasting operation is conducted at a private residence or a farm and the visible emissions created by this abrasive blasting operation do not migrate beyond the property boundary of the private residence or farm on which the abrasive blasting is being conducted.
- c. The Permittee of any abrasive blasting operation conducted in accordance with (b)(ii) or (b)(iii) of this condition, outside a building, shall take the appropriate measures to ensure that the fugitive dust emissions created by the abrasive blasting operation do not migrate beyond the property boundaries in which the abrasive blasting is being conducted. Appropriate measures include the following:
 - i. the addition of a wet suppressant to the abrasive blasting material,
 - ii. wet abrasive blasting,
 - iii. hydroblasting,
 - iv. shrouded blasting, or
 - v. shrouded hydroblasting.

H. Small-round cleaning operation and media preparation (ID No. ES-2B) with associated fabric filter (ID No. CD-2B-DC427)

Furnace packing media recycling processes (ID No. ES-2F) and Building No. 5 Sagger can unloading station (ID No. ES-2L-DC05) with associated fabric filter (ID No. CD-2F-DC5524)

Pit furnace Sagger handling operations (ID No. ES-2I) with associated cartridge-type fabric filter (ID No. CD-2I-DC05)

Two sand receiving silos (ID Nos. ES-2J01 and ES-2J02) with associated fabric filters (ID Nos. CD-BK-

SR01 and CD-BK-SR02) respectively

Rebaked stock cleaning operation (ID No. ES-2K) with associated cartridge-type fabric filter (ID No. CD-02D-DC01)

The following provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(for process rates less than or equal to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (for process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	(ID Nos. ES-2I, ES-2J01, ES-2J02, ES-2K, and ES-2L-DC05 only) 20 percent opacity (ID Nos. ES-2B and ES-2F only) 40 percent opacity	15A NCAC 02D .0521
Particulate matter	(ID Nos. CD-2B-DC-427 and CD-2F-DC5524 only) See Section 2.2 C	15A NCAC 02D .0614

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources **(ID Nos. ES-2B, ES-2F, ES-2I, ES-2J01, ES-2J02, ES-2K, and ES-2L-DC05)** shall not exceed an allowable emission rate as calculated by the following equations:

$$E = 4.10 \times P^{0.67} \quad (\text{for process rates less than or equal to 30 tons per hour}), \text{ or}$$

$$E = 55.0 \times P^{0.11} - 40 \quad (\text{for process rates greater than 30 tons per hour})$$

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 H.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from these sources **(ID Nos. ES-2B, ES-2F, ES-2I, ES-2J01, ES-2J02, ES-2K, and ES-2L-DC05)** shall be controlled by four fabric filters **(ID Nos. CD-2B-DC427, CD-2F-DC5524, CD-BK-SR01, and CD-BK-SR02)** and two cartridge-type filters **(ID Nos. CD-2I-DC05 and CD-02D-DC01)** as described above. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. weekly external inspection of any pneumatic conveyors, screw conveyors, elevators, ductwork, fabric filters, and cartridge-type filters noting the structural integrity and visible emissions;
 - ii. monthly preventative maintenance (PM) on the cartridge-type fabric filters **(ID Nos. CD-2I-DC05 and CD-02D-DC01)** including checking filter cartridges, screw flights, drive units, pressure drop readings, checkerboard panel for any alarms and/or problems which may have been detected, checking for fatigue cracks in the collector housing and fan housing, checking pulse valves for proper operation, checking screw and rotary valves for proper operation, checking fan bearings, belts, and sheaves;

- iii. monthly preventative maintenance (PM) on the bag-type fabric filters (**ID Nos. CD-2B-DC427, CD-2F-DC5524, CD-BK-SR01, and CD-BK-SR02**) including recording pressure drop readings, checking collector housing and fan housing for cracks, checking blow down system, checking fan sheaves, belts, and bearings, checking screw conveyor for proper operation, checking pump valves for proper operation, checking bins for content levels; and
- iv. annual internal inspections (for each 12-month period following the initial inspection) of each control device noting the structural integrity and the condition of the filters.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and fabric filters are not inspected and maintained.

- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on any control device; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on any control device within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section(s) 2.1 H.1.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from the sources (**ID Nos. ES-2I, ES-2J01, ES-2J02, ES-2K, and ES-2L-DC05**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.
- b. Visible emissions from the sources (**ID Nos. ES-2B and ES-2F**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 H.2.a or b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- d. To ensure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-2B, ES-2F, ES-2I, ES-2J01, ES-2J02, ES-2K, and ES-2L-DC05**) for any visible emissions above normal. The weekly observations must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12-minutes is below the limit given in Section 2.1 H.2.a and b above.

The Permittee shall be deemed to be in noncompliance with 15A NCAC 15A NCAC 02D .0521 if the required weekly observations are not conducted as required; if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made; or if "normal" is not

established for these source(s) in the first 30 days following the effective date at this permit / of beginning operation.

- e. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 H.2.d and e above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

I. Three car bottom-type natural gas-fired carbon electrode baking/rebaking furnaces (ID Nos. ES-02D-50 through ES-02D-52) where twelve burners are rated at 1.69 million BTU hour maximum heat input each with associated natural gas-fired thermal oxidizer (ID No. CD-02D-55F)

One natural gas-fired pit-type baking/rebaking furnace (ID No. ES-2E-57F61) where twenty-four are rated at 0.5 million BTU hour maximum heat input and six rated at 0.9 million BTU hour maximum heat input with associated with associated natural gas-fired thermal oxidizer (ID No CD-2E-57F61)

Six natural gas-fired pit-type carbon electrode baking/rebaking furnaces (ID Nos. ES-2E-57F62 through ES-2E-57F67) where six are rated at 2.7 million BTU hour maximum heat input each, three are rated at 1.03 million BTU hour maximum heat input each, nine are rated at 1.50 million BTU hour maximum heat input each, and three rated at 0.33 million BTU hour maximum heat input each with associated natural gas-fired thermal oxidizers (ID Nos. CD-2E-57F62 through CD-2E-05F67)

Ten natural gas fired recirculation baking furnaces with moveable hoods (ID Nos. ES-2H-10 through ES-2H-19) rated at 16.38 million BTU hour maximum heat input each with associated direct-flame natural gas-fired thermal oxidizer (ID No. CD-2H-04E4)

The following provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(for process rates less than or equal to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (for process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Sulfur dioxide	2.3 pounds per million Btu	15A NCAC 02D .0516
Visible emissions	(ID Nos. ES-2E-57F61 through ES-2E-57F67 only) 20 percent opacity (ID Nos. ES-02D-50 through ES-02D-52, and ES-2H-10 through ES-2H-19 only) 40 percent opacity	15A NCAC 02D .0521
Toxic air pollutants	State-enforceable only See Section 2.2 A.2	15A NCAC 02D .1100

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources (**ID Nos. ES-02D-50 through ES-02D-52, ES-2E-57F61 through ES-2E-57F67, and ES-2H-10 through ES-2H-19**) shall not exceed an allowable emission rate as calculated by the following equations:

$$E = 4.10 \times P^{0.67} \quad (\text{for process rates less than or equal to 30 tons per hour}), \text{ or}$$
$$E = 55.0 \times P^{0.11} - 40 \quad (\text{for process rates greater than 30 tons per hour})$$

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance General Condition JJ. If the results of this test are above the limit given in Section 2.1 I.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from these sources (**ID Nos. ES-02D-50 through ES-02D-52, ES-2E-57F61 through ES-2E-57F67, and ES-2H-10 through ES-2H-19**) shall be controlled by the natural gas-fired thermal oxidizers (**ID No. CD-02D-55F, CD-2E-57F61 through CD-2E-57F67, and CD-2H-04E4**) as described above. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. a monthly visual inspection of the system ductwork and material collection units for leaks; and
 - ii. an annual (for each 12-month period following the initial inspection) internal inspection of the primary heat exchangers and associated inlet/outlet valves to ensure structural integrity.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and thermal oxidizers are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on the thermal oxidizers; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on the thermal oxidizers within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section(s) 2.1 I.1.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from these sources (**ID Nos. ES-02D-50 through ES-02D-52, ES-2E-57F61 through ES-2E-57F67, and ES-2H-10 through ES-2H-19**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 I.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas in these sources (**ID Nos. ES-02D-50 through ES-02D-52, ES-2E-57F61 through ES-2E-57F67, and ES-2H-10 through ES-2H-19**).

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. ES-2E-57F61 through ES-2E-57F67**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.
- b. Visible emissions from these sources (**ID Nos. ES-02D-50 through ES-02D-52, and ES-2H-10 through ES-2H-19**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 I.3.a or b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- d. To ensure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-02D-50 through ES-02D-52, ES-2E-57F61 through ES-2E-57F67, and ES-2H-10 through ES-2H-19**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12-minutes is below the limits given in Section 2.1 I.3.a and b above.

The Permittee shall be deemed to be in noncompliance with 15A NCAC 15A NCAC 02D .0521 if the required weekly observations are not conducted as required; if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made; or if “normal” is not established for these source(s) in the first 30 days following the effective date at this permit / of beginning operation.

- e. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 I.2.d and e above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

- J. Four natural gas-fired pitch impregnation preheaters (ID Nos. ES-4A-1 through ES-4A-4) rated at 1.69 million BTU hour maximum heat input each, and
Three pitch impregnation tanks (ID Nos. ES-4A-5 through ES-4A-7)
with associated natural gas-fired thermal oxidizer (ID No. CD-4A)**

The following provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(for process rates less than or equal to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (for process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	40 percent opacity	15A NCAC 02D .0521
Toxic air pollutants	State-enforceable only See Section 2.2 A.3	15A NCAC 02Q .0711

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources (ID Nos. ES-4A-1 through ES-4A-7) shall not exceed an allowable emission rate as calculated by the following equations:

$$E = 4.10 \times P^{0.67} \quad (\text{for process rates less than or equal to 30 tons per hour}), \text{ or}$$

$$E = 55.0 \times P^{0.11} - 40 \quad (\text{for process rates greater than 30 tons per hour})$$

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 J.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from these sources (ID Nos. ES-4A-1 through ES-4A-7) shall be controlled by the natural gas-fired thermal oxidizer (ID No. CD-4A). To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
 - ii. an annual (for each 12-month period following the initial inspection) internal inspection of the primary heat exchanger and associated inlet/outlet valves to ensure structural integrity.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and thermal oxidizers are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on the thermal oxidizers; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on the thermal oxidizers within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section(s) 2.1 J.1.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from these sources (**ID Nos. ES-4A-1 through ES-4A-7**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 J.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas in these sources (**ID Nos. ES-4A-1 through ES-4A-7**).

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. ES-4A-1 through ES-4A-7**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity.

Testing [15A NCAC 02D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 J.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-4A-1 through ES-4A-7**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12-minutes is below the limits given in Section 2.1 J.1.a above.The Permittee shall be deemed to be in noncompliance with 15A NCAC 15A NCAC 02D .0521 if the required weekly observations are not conducted as required; if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made; or if "normal" is not established for these source(s) in the first 30 days following the effective date at this permit / of beginning operation.
- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not

maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 J.3. c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

K. Graphite Department equipment (ID No. ES-5A) including:

- By-products material bagging machine (No. BYP),
- One small band saw (No. C16143),
- One sample grinder (No. C2302),
- Rail hoods (No. C2304),
- One large cleaning machine (No. C2315),
- One bucket elevator (No. C2330),
- One chip bin hood (No. C2331),
- One "L" core drill (No. C2346),
- One "T" core drill (No. C2347),
- One large band saw (No. C2348),
- Miscellaneous graphite machining operations (No. MISC) consisting of:
 - Rahn-Mayer Lathe #2508 (No. 1)
 - Sirco PA36 Lathe #2574 (No. 2)
 - Beco Lathe (No. 3)
 - Gisholt Turret Lathe #2512 (No. 4)
 - 20" American Tracer Lathe #2533 (No. 5)
 - 20" American Lathe #2534 (No. 8)
 - Morris Radial Drill (No. 11)
 - Cincinnati Milling Machine #2560 (No. 12)
 - Band Saw (No. 13)
 - Do-All Band Saw #2506 (No. 14)
 - Do-All Band Saw (No. 15)
 - Laidlaw Band Saw #2561 (No. 16), and
 - DeWalt Radial Cut-off Saw (No. 18)
 - Two Kingston Lathes (Nos. 19 and 20)
 - One custom cut-off saw (No. 21)

with associated fabric filter (ID No. CD-5A-DC2324)

The following provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(for process rates less than or equal to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (for process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521
Particulate matter	See Section 2.2 C	15A NCAC 02D .0614

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources (ID No. ES-5A) shall not exceed an allowable emission rate as calculated by the following equations:

$$E = 4.10 \times P^{0.67} \quad (\text{for process rates less than or equal to 30 tons per hour), or}$$
$$E = 55.0 \times P^{0.11} - 40 \quad (\text{for process rates greater than 30 tons per hour})$$

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 K.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from these sources (**ID No. ES-5A**) shall be controlled by the fabric filter (**ID No. CD-5A-DC2324**). To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. weekly external inspection of any pneumatic conveyors, screw conveyors, elevators, ductwork, and the fabric filter noting the structural integrity and visible emissions; and
 - ii. monthly preventative maintenance (PM) on the bag-type fabric filter including recording pressure drop readings, checking collector housing and fan housing for cracks, checking blow down system, checking fan sheaves, belts, and bearings, checking screw conveyor for proper operation, checking pump valves for proper operation, checking bins for content levels; and
 - iii. annual (for each 12-month period following the initial inspection) internal inspections of the fabric filter noting the structural integrity and the condition of the filter.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and fabric filter are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
- i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on the fabric filter; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on the fabric filter within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section(s) 2.1 K.1.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID No. ES-5A**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If

the results of this test are above the limit given in Section 2.1 K.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, once a week the Permittee shall observe the emission points of these sources (**ID No. ES-5A**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 K.2.a above.

The Permittee shall be deemed to be in noncompliance with 15A NCAC 15A NCAC 02D .0521 if the required weekly observations are not conducted as required; if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made; or if “normal” is not established for these source(s) in the first 30 days following the effective date at this permit / of beginning operation.
- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 K.2.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

L. Six electric lengthwise graphitizing (LWG) furnaces (ID Nos. ES-5E.1 through ES-5E.6) with one associated rectifier (No. 2) controlled by one fabric filter (ID No. CD-5E-S1a), one RTO (ID No. CD-5E-S1b), and one packed tower scrubber (ID No. CD-5E-S1c) in series; and

Six electric lengthwise graphitizing (LWG) furnaces (ID Nos. ES-5E.7 through ES-5E.12) with one associated rectifier (No. 1)

The following provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(for process rates less than or equal to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (for process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521
PM ₁₀ , PM _{2.5} , SO ₂ , VOC, CO, NO _x , CO ₂ , TRS, H ₂ S, and H ₂ SO ₄	See Specific Condition 2.1 L.3	15A NCAC 02D .0530(u) (PSD Avoidance)

Regulated Pollutant	Limits/Standards	Applicable Regulation
Odor	State-enforceable only See Section 2.2 A.1	15A NCAC 02D .1806
Toxic air pollutants	State-enforceable only See Section 2.2 A.2	15A NCAC 02D .1100

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources (**ID Nos. ES-5E.1 through ES-5E.12**) shall not exceed an allowable emission rate as calculated by the following equations:

$$E = 4.10 \times P^{0.67} \quad (\text{for process rates less than or equal to 30 tons per hour}), \text{ or}$$

$$E = 55.0 \times P^{0.11} - 40 \quad (\text{for process rates greater than 30 tons per hour})$$

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 L.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. The Permittee shall maintain production records such that the process rates “P” in tons per hour, as specified by the formulas contained above can be derived and shall make these records available to a DAQ authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the production records are not maintained or the types of materials and finishes are not monitored.
- d. No reporting is required for particulate emissions from these sources (**ID Nos. ES-5E.1 through ES-5E.12**).

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. ES-5E.1 through ES-5E.12**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 K.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-5E.1 through ES-5E.12**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
- take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12-minutes is below the limit given in Section 2.1 L.2.a above.
- The Permittee shall be deemed to be in noncompliance with 15A NCAC 15A NCAC 02D .0521 if the required weekly observations are not conducted as required; if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made; or if “normal” is not established for these source(s) in the first 30 days following the effective date at this permit / of beginning

operation.

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the monitoring or recordkeeping activities given in Section(s) 2.1 L.2.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. 15A NCAC 02D .0530(u): USE OF PROJECTED ACTUAL EMISSIONS TO AVOID APPLICABILITY OF PREVENTION OF SIGNIFICANT DETERIORATION REQUIREMENTS

- a. The Permittee has used projected actual emissions (PAE) to avoid applicability of prevention of significant deterioration requirements for the project consisting of the construction and operation of rectifier No. 2 and construction and operation of the optional control system consisting of a fabric filter (**ID No. CD-5E-S1a**), RTO (**ID No. CD-5E-S1b**) and scrubber (**ID No. CD-5E-S1c**) in series installed on six LWG furnaces (**ID Nos. (ES-5E.1 through ES-5E.6)**) of the twelve (12) LWG furnaces (**ID Nos. ES-5E.1 through ES-5E.12**) in the graphitization area as fully described in Application No. **1200028.17A**.

In order to verify the assumptions used in the projected actual emissions calculations, the Permittee shall comply with the testing, monitoring, recordkeeping and reporting requirements in conditions. b. through v. below.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance General Condition JJ.
- c. Initial testing shall not be required until the associated emissions capture and control system installed on the six LWG furnaces (**ID Nos. (ES-5E.1 through ES-5E.6)**) commences normal operation and after achieving maximum production rates for HLM and CAG3. Initial testing shall be conducted within 60 days after achieving the maximum production rate of HLM and CAG3.
- d. Under the provisions of NCGS 143-215.108, the Permittee shall conduct before and after control source testing of one of the six LWG furnaces (**ID Nos. (ES-5E.1 through ES-5E.6)**) while operating one rectifier for PM <10 µm (PM₁₀) [filterable and condensable], PM <2.5µm (PM_{2.5}) [filterable and condensable], sulfur dioxide (SO₂), volatile organic compounds (VOC), carbon monoxide (CO), nitrogen oxides (NO_x), carbon dioxide (CO₂), TRS (total reduced sulfur), H₂S (hydrogen sulfide), and sulfuric acid (H₂SO₄) mist in accordance with a testing protocol approved by the DAQ.
- e. The Permittee shall notify the Asheville Regional Office at least 15 days before the scheduled emissions tests begins.
- f. At least one compliance test shall be conducted every five calendar years. There shall be no more than sixty-two months between any two compliance tests. The 5-year testing cycle shall commence with the approval of the initial compliance stack tests.
- g. The results of each approved test shall be used to derive emission factors in pounds of pollutant per metric ton (MT) of HLM and CAG3 (on a pollutant by pollutant basis) produced.
- h. The Permittee shall submit an air permit application to modify the derived factors and interim PAEs (Projected Actual Emissions) in Table 2.1 L.1, below, within 30 days of the approval of the emissions tests.
- i. Interim parametric monitoring limitations and ranges follow. Actual parametric monitoring ranges and limits shall be established during the tests. The Permittee shall submit an air permit application to modify the interim parametric monitoring based on the approved emissions tests.

Interim Parametric Monitoring

1. Fabric filter (**ID No. CD-5E-S1a**) – Pressure drop minimum -25 in. H₂O; maximum +25 in. H₂O.
 2. RTO (**ID No. CD-5E-S1b**) – Minimum temperature 1,500 degrees F.
 3. Scrubber (**ID No. CD-5E-S1c**) – 0.8 gal./min caustic injection rate; pH minimum 12.6; maximum (quenched) entering temperature 150 °F.
 4. Local Exhaust Ventilation System (hoods) – Indicators of capture according to manufacturer-specified hood capture system parameters.
- j. Testing shall be performed on one LWG furnace during the emissions generating phases of the heating and cooling phases. Testing may cease during the cooling phase when emissions reach non-detect levels or the cooling cycle is complete. Unless otherwise approved by the DAQ, testing shall be conducted with the source operating at least at 90% of its permitted capacity of 46 MT of HLM and 33 MT of CAG3 product loaded weight for two LWG furnaces. The Permittee shall measure and record the operation batch rates (HLM and CAG3) during the test.

Monitoring [15A NCAC 02Q .0530(u)]

- k. The Permittee shall monitor the monthly throughput in MT (metric tons) of finished products (HLM, CAG3, and re-graphitized CAG3¹) and the emissions control status as these products are manufactured.
- l. The Permittee shall continuously monitor the control parameters as per 2.1 L.3.i. 1 through 4, the interim parametric monitoring, above.
- m. The Permittee shall conduct monthly periodic capture system inspections.

Recordkeeping [15A NCAC 02Q .0508(f)]

- n. The Permittee shall maintain production records (in written or electronic form) of MT (metric tons) of HLM² and CAG3 produced per calendar month.
- o. The Permittee shall maintain continuous monitoring records (in written or electronic form) of control parameters as per 2.2 L.3.i. 1 through 4, the interim parametric monitoring, above.
- p. The Permittee shall maintain records of actual emissions for the pollutants in Table 2.1 L.1 in tons per year on a calendar year basis for **ten years** following the resumption of regular operations **following the commencement of normal operation of rectifier No. 2. and following the commencement of normal operation of the optional control system.**
- q. For each pollutant PM₁₀, PM_{2.5}, SO₂, VOC, CO, NO_x, CO₂, TRS, H₂S and H₂SO₄:

$$\sum_{n=1}^{10} = \text{Total LWG Emissions} \left(\frac{\text{tons}}{\text{month}} \right)$$

$$\text{Total LWG Emissions} \left(\frac{\text{tons}}{\text{month}} \right) = \left[\left(\frac{\text{MT HLM}}{\text{month}} \right) \times \text{HLM EF} \left(\frac{\text{lb}}{\text{MT HLM}} \right) + \left(\frac{\text{MT CAG3}}{\text{month}} \right) \times \text{CAG3 EF} \left(\frac{\text{lb}}{\text{MT CAG3}} \right) \right]$$

Where;

LWG = Twelve lengthwise graphitizing (LWG) furnaces (ID Nos. ES-5E.1 through ES-5E.12) with optional associated fabric filter (ID No. CD-5E-S1a), RTO (ID No. CD-5E-S1b) and scrubber (ID No. CD-5E-S1a)

MT = Metric tons

HLM EF = Emissions factor (lb/(MT HLM))

CAG3 EF = Emissions factor (lb/MT CAG3)

n = The series of all pollutants

- r. The actual emissions of the twelve LWG furnaces (**ID Nos. (ES-5E.1 through ES-5E.12) following the**

¹ For the purposes of determining compliance with this permit condition, throughput of re-graphitized CAG3 product shall be included with HLM throughput.

² Ibid **Error! Bookmark not defined.**

commencement of normal operation of rectifier No. 2 and following the commencement of normal operation of the optional control system shall be calculated monthly and compared to the interim PAEs by applying the interim emissions factors (which include the manufacturer's specified capture efficiency of 90% for the controlled case) below:

Table 2.1 L.1

Pollutant	Interim Projected Actual Emissions (including fugitive emissions) * (tpy)	Interim Emissions Factors by Product (including fugitive emissions)			
		HLM uncontrolled (lb/MT)	CAG3 uncontrolled (lb/MT)	HLM controlled (lb/MT)	CAG3 controlled (lb/MT)
PM ₁₀	13.41	0.24	5.10	0.03	0.56
PM _{2.5}	12.40	0.22	4.72	0.02	0.51
SO ₂	147.79	1.77	54.32	0.26	7.88
VOC	10.05	0.87	2.79	0.10	0.33
CO	447.32	24.51	133.20	4.22	22.91
NO _x	2.45	0.04	0.21	0.04	0.21
CO ₂	23,490.50	1,258	3,198	1,258	3,198
TRS (H ₂ S and CH ₄ S only)	13.71	0.40	4.93	0.05	0.58
H ₂ S (Non-HAP RS only)	13.65	0.40	4.91	0.05	0.58
H ₂ SO ₄	2.03	0	0	0.01	0.33

* The projected actual emissions are not enforceable limitations. If the reported actual emissions exceed the projected actual emissions, the Permittee shall include in its annual report an explanation as to why actual emissions exceeded the projected actual emissions.

- s. The Permittee shall make the information, documented and maintained in this condition available to the Director or the general public pursuant to the requirements in 40 CFR 70.4(b)(3)(viii).

Reporting [15A NCAC 02Q .0508(f)]

- t. The Permittee shall submit a report of the emissions of the pollutants listed in Table 2.1 L.1 to the Director within 60 days after the end of each calendar year during which the records in Section 2.1 L.3.r above must be generated. The report shall contain the items listed in 40 CFR 51.166(r)(6)(v)(a) through (c). The reported actual emissions for each of the ten calendar years for the following pollutants will be compared to the respective projected actual emissions as included in Table 2.1 L.1 above.
- u. The reported actual emissions (post-construction emissions) of the twelve LWG furnaces (**ID Nos. (ES-5E.1 through ES-5E.12)**) following the commencement of normal **operation of rectifier No. 2 and following the commencement of normal operation of the optional control system** for each of the ten calendar years will be compared to the projected actual emissions (pre-construction projection) for the twelve LWG furnaces (**ID Nos. (ES-5E.1 through ES-5E.12)**) as per the above.
- v. The Permittee shall submit a summary report of the actual emissions within 60 days after the end each calendar year during which the records in condition p. must be generated. The report shall contain the following:
- the monthly PM₁₀, PM_{2.5}, SO₂, VOC, CO, NO_x, CO₂, TRS, H₂S and H₂SO₄ emissions from these sources (**ID Nos. ES-5E.1 through ES-5E.12**) for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months.

All instances of deviations from the requirements of this permit must be clearly identified.

M. One packing media recycling process line (ID No. ES-5I) with associated fabric filter (ID No. CD-5I-DC2474)

One stock machining and conveying line (ID No. ES-5J) with associated fabric filter (ID No. CD-5J-DC5803)

One LWG media crusher system (ID No. ES-5L) with associated fabric filter (ID No. CD-5L-DC101)

Packed media silo (ID No. ES-5M) controlled by one bin vent filter (86 square feet of filter area; ID No. CD-5M)

The following provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(for process rates less than or equal to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (for process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521
Particulate matter	(ID Nos. CD-5I-DC2474 CD-5J-DC5803, and CD-5L-DC101) See Section 2.2 C	15A NCAC 02D .0614

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from these sources (ID Nos. ES-5I, ES-5J, ES-5L, and ES-5M) shall not exceed an allowable emission rate as calculated by the following equations:

$$E = 4.10 \times P^{0.67} \quad (\text{for process rates less than or equal to 30 tons per hour}), \text{ or}$$

$$E = 55.0 \times P^{0.11} - 40 \quad (\text{for process rates greater than 30 tons per hour})$$

Where E = allowable emission rate in pounds per hour
 P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 M.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

c. Particulate matter emissions from these sources (ID Nos. ES-5I, ES-5J, ES-5L, and ES-5M) shall be controlled by the fabric filters (ID Nos. CD-5I-DC2474, CD-5J-DC5803, CD-5L-DC101 and CD-5M) as described above. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:

- i. weekly external inspection of any pneumatic conveyors, screw conveyors, elevators, ductwork, and the fabric filters noting the structural integrity and visible emissions;
- ii. monthly preventative maintenance (PM) on bag-type fabric filters including recording pressure drop readings, checking collector housing and fan housing for cracks, checking blow down system, checking fan sheaves, belts, and bearings, checking screw conveyor for proper operation, checking pump valves

for proper operation, checking bins for content levels; and
iii. annual internal inspections (for each 12-month period following the initial inspection) of each fabric filter noting the structural integrity and the condition of the filters.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and fabric filters are not inspected and maintained.

- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on the fabric filters; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on the fabric filters within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section(s) 2.1 M.1.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**D Nos. ES-5I, ES-5J, ES-5L, and ES-5M**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event, shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 M.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-5I, ES-5J, ES-5L and ES-5M**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
- i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12-minutes is below the limit given in Section 2.1 M.2.a above.
- The Permittee shall be deemed to be in noncompliance with 15A NCAC 15A NCAC 02D .0521 if the required weekly observations are not conducted as required; if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made; or if "normal" is not established for these source(s) in the first 30 days following the effective date at this permit / of beginning operation.
- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 M.2.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

N. Graphite finishing operation (ID No. ES-6A) with associated cyclone (ID No. CD-6A-DC1164a) in series with one fabric filter (CD-6A-DC1164b)

The following provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(for process rates less than or equal to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (for process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	40 percent opacity	15A NCAC 02D .0521
Particulate matter	(ID No. CD-6A-DC1164b only) See Section 2.2 C	15A NCAC 02D .0614

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from this source (**ID No. ES-6A**) shall not exceed an allowable emission rate as calculated by the following equations:

$E = 4.10 \times P^{0.67}$ (for process rates less than or equal to 30 tons per hour), or
 $E = 55.0 \times P^{0.11} - 40$ (for process rates greater than 30 tons per hour)

Where E = allowable emission rate in pounds per hour
 P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 N.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from this source (**ID No. ES-6A**) shall be controlled by one cyclone (**ID No. CD-6A-DC1164a**) and one fabric filter (**ID No. CD-6A-DC1164b**) as described above. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
 - i. weekly external inspection of any pneumatic conveyors, screw conveyors, elevators, ductwork, and the fabric filters noting the structural integrity and visible emissions;
 - ii. monthly preventative maintenance (PM) on bag-type fabric filters including recording pressure drop readings, checking collector housing and fan housing for cracks, checking blow down system, checking fan sheaves, belts, and bearings, checking screw conveyor for proper operation, checking pump valves for proper operation, checking bins for content levels; and
 - iii. annual internal inspections (for each 12-month period following the initial inspection) of each fabric

filter noting the structural integrity and the condition of the filters.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and fabric filter are not inspected and maintained.

- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on the fabric filter; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on the fabric filter within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section(s) 2.1 N.2.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from this source (**ID No. ES-6A**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 N.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, once a week the Permittee shall observe the emission points of this source (**ID No. ES-6A**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12-minutes is below the limit given in Section 2.1 N.2.a above.
- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made; or if "normal" is not established for these source(s) in the first 30 days following the effective date at this permit / of beginning operation.

Reporting [15A NCAC 02Q .0508(f)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 N.2.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

O. Carpentry shop woodworking operation (ID No. ES-6B) with associated fabric filter (ID No. CD-6B)

The following provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	Adequate ductwork and properly designed collectors	15A NCAC 02D .0512
Visible emissions	40 percent opacity	15A NCAC 02D .0521
Particulate matter	(ID No. CD-6B) See Section 2.2 C	15A NCAC 02D .0614

1. 15A NCAC 02D .0512: PARTICULATES FROM MISCELLANEOUS WOOD PRODUCTS FINISHING PLANTS

- a. The Permittee shall not cause, allow, or permit particulate matter caused by the working, sanding, or finishing of wood to be discharged from any stack, vent, or building into the atmosphere without providing, as a minimum for its collection, adequate duct work and properly designed collectors. In no case shall the ambient air quality standards be exceeded beyond the property line.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- b. Particulate matter emissions from this source (**ID No. ES-6B**) shall be controlled by one fabric filter (**ID No. CD-6B**). To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer, if any. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. weekly external inspection of any pneumatic conveyors, screw conveyors, elevators, ductwork, and the fabric filters noting the structural integrity and visible emissions;
 - ii. monthly preventative maintenance (PM) on bag-type fabric filters including recording pressure drop readings, checking collector housing and fan housing for cracks, checking blow down system, checking fan sheaves, belts, and bearings, checking screw conveyor for proper operation, checking pump valves for proper operation, checking bins for content levels; and
 - iii. annual internal inspections (for each 12-month period following the initial inspection) of each fabric filter noting the structural integrity and the condition of the filters.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0512 if the ductwork and fabric filter are not inspected and maintained.

- c. The results of inspection and maintenance shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
- i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on the fabric filter; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0512 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- d. The Permittee shall submit the results of any maintenance performed on the fabric filter within 30 days of a written request by the DAQ.
- e. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section(s) 2.1 O.1.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly

identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from this source (**ID Nos. ES-6B**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 O.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, once a week the Permittee shall observe the emission points of this source (**ID No. ES-6B**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12-minutes is below the limit given in Section 2.1 O.2.a above.

The Permittee shall be deemed to be in noncompliance with 15A NCAC 15A NCAC 02D .0521 if the required weekly observations are not conducted as required; if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made; or if “normal” is not established for these source(s) in the first 30 days following the effective date at this permit / of beginning operation.
- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 O.2.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

P. One G&L Vertical Boring Mill (ID No. ES-7B.1), and Hill-Acme Grinder (ID No. ES-7B.2), with associated fabric filter (ID No. CD-7B-DC2502)

One Bullard Vertical Boring Mill (Building 25C) and Bullard Mill #2526, No. 9 (ID No. ES-7C) with associated fabric filters (ID No. CD-7C-DC2578 and CD-7C-DC2578B)

The following provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(for process rates less than or equal to 30 tons per hour) $E = 4.10 \times P^{0.67}$	15A NCAC 02D .0515

	(for process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E =allowable emission rate in pounds per hour P =process weight in tons per hour	
Visible emissions	40 percent opacity	15A NCAC 02D .0521

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources (**ID Nos. ES-7B.1, ES-7B.2, and ES-7C**) shall not exceed an allowable emission rate as calculated by the following equations:

$$E = 4.10 \times P^{0.67} \quad (\text{for process rates less than or equal to 30 tons per hour}), \text{ or}$$

$$E = 55.0 \times P^{0.11} - 40 \quad (\text{for process rates greater than 30 tons per hour})$$

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 P.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from these sources (**ID Nos. ES-7B.1, ES-7B.2, and ES-7C**) shall be controlled by the fabric filters (**ID Nos. CD-7B-DC2502, CD-7C-DC2578, and CD-7C-DC2578B**) as described above. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:

- i. weekly external inspection of any pneumatic conveyors, screw conveyors, elevators, ductwork, and the fabric filters noting the structural integrity and visible emissions;
- ii. monthly preventative maintenance (PM) on bag-type fabric filters including recording pressure drop readings, checking collector housing and fan housing for cracks, checking blow down system, checking fan sheaves, belts, and bearings, checking screw conveyor for proper operation, checking pump valves for proper operation, checking bins for content levels; and
- iii. annual internal inspections (for each 12-month period following the initial inspection) of each fabric filter noting the structural integrity and the condition of the filters.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and fabric filters are not inspected and maintained.

- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on the fabric filters; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on the fabric filters within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section(s) 2.1 P.1.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period

between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. ES-7B.1, ES-7B.2, and ES-7C**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 P.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-7B.1, ES-7B.2, and ES-7C**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12-minutes is below the limit given in Section 2.1 P.2.a above.

The Permittee shall be deemed to be in noncompliance with 15A NCAC 15A NCAC 02D .0521 if the required weekly observations are not conducted as required; if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made; or if “normal” is not established for these source(s) in the first 30 days following the effective date at this permit / of beginning operation.
- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 P.2.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

Q. Two natural gas-fired extrusion boilers (ID Nos. ES-CB230 and ES-PB-233) where both are rated at 12.553 million BTU per hour each

The following provides a summary of emission and/or operation limits for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(ID No. ES-CB230 and ES-PB-233) 0.57 pounds per million Btu heat input each	15A NCAC 02D .0503
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	20 percent opacity	15A NCAC 02D .0521

Regulated Pollutant	Limits/Standards	Applicable Regulation
NA	(ID No. ES-PB-233 only) Recordkeeping only; monthly fuel records	15A NCAC 02D .0524 (40 CFR 60 Subpart Dc)
Hazardous Air Pollutants	Maximum Achievable Control Technology See Section 2.1 Q.5	15A NCAC 02D .1111 (40 CFR Part 63, Subpart DDDDD)

1. 15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from the combustion of natural gas that are discharged from these sources **(ID No. ES-CB230 and ID No. ES-PB-233)** into the atmosphere shall not exceed 0.57 pounds per million Btu heat input for each boiler.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 Q.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas in these sources **(ID Nos. ES-CB230 and ES-PB-233)**.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from these sources **(ID Nos. ES-CB230 and ES-PB-233)** shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance General Condition JJ. If the results of this test are above the limit given in Section 2.1 Q.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas in these sources **(ID Nos. ES-CB230 and ES-PB-233)**.

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources **(ID Nos. ES-CB230 and ES-PB233)** shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 Q.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas in these sources **(ID Nos. ES-CB230 and ES-PB-233)**.

4. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

- a. For this source **(ID No. ES-PB233)** the Permittee shall comply with all applicable provisions, including the

notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards" (NSPS) as promulgated in 40 CFR Part 60 Subpart Dc, including Subpart A "General Provisions."

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- b. The Permittee shall keep monthly records of the amount of natural gas fired in this source (**ID No. ES-PB233**).

5. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Applicability [40 CFR 63.7485, §63.7490(d), §63.7499(l)]

- a. For these existing sources (**ID Nos. ES-CB230 and ES-PB-233**), the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subpart DDDDD, "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters" and Subpart A "General Provisions."

Definitions and Nomenclature [§63.7575]

- b. For the purpose of this permit condition, the definitions and nomenclature contained in 40 CFR 63.7575 shall apply.

40 CFR Part 63 Subpart A General Provisions [§63.7565]

- c. The Permittee shall comply with the requirements of 40 CFR 63 Subpart A General Provisions according to the applicability of Subpart A to such sources as identified in Table 10 to 40 CFR Part 63, Subpart DDDDD.

Compliance Date [40 CFR 63.7510(e)]

- d. The Permittee shall complete the initial tune up and the one-time energy assessment no later than January 31, 2016. *The initial tune up was completed on October 29, 2015 and the one-time energy assessment was completed on November 11, 2015.*

Notifications [§63.7510(e)(8), §§63.7530(d)]

- e. The Permittee shall submit a Notification of Compliance Status. The notification must be signed by a responsible official and sent before the close of business on the 60th day following the completion of the initial tune up and one-time energy assessment (whichever is later). *This requirement was completed on February 9, 2016.*

Work Practice Standards [15A NCAC 02Q .0508(f)]

- f. i. The Permittee shall conduct a tune-up of the source(s) annually as specified below:
- (A) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the Permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown);
 - (B) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
 - (C) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the Permittee may delay the inspection until the next scheduled unit shutdown);
 - (D) Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available, and with any NOX requirement to which the unit is subject; and
 - (E) Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.

[§§63.7500(a), (e), §63.7540(a)(10)]

- ii. Each annual tune-up shall be conducted no more than 13 months after the previous tune-up. [§63.7515(d)]
- iii. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [§63.7540(a)(13), §63.7515(g)]
- iv. At all times, you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [§63.7500(a)(3)]
- v. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in Section 2.1 Q.5.f are not met.

Energy Assessment Requirements [15A NCAC 02Q .0508(f)]

- g. The Permittee shall have a one-time energy assessment performed by a qualified energy assessor. [§63.7500(a)(1), Table 3] *This requirement was complete on November 11, 2015.*

Recordkeeping Requirements [15A NCAC 02Q .0508(f), §63.7555]

- h. The Permittee shall:
 - i. keep a copy of each notification and report submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status, or semiannual compliance report that has been submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.7555(a)(1)]
 - ii. maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (A) through (C) below:
 - (A) the concentrations of carbon monoxide in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the source;
 - (B) a description of any corrective actions taken as a part of the tune-up; and
 - (C) the type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.[§63.7540(a)(10)(vi)]
 - iii. keep the associated records for Sections 2.1 Q.5.f through g.
 - iv. keep:
 - (A) maintain records in a form suitable and readily available for expeditious review;
 - (B) keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record; and
 - (C) keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee can keep the records offsite for the remaining 3 years.[§63.7560, §63.10(b)(1)]
 - v. be deemed in noncompliance with 15A NCAC 02D .1111 if records are not maintained as described in Sections 2.1 Q.5.h.

Reporting Requirements [15A NCAC 02Q .0508(f)]

- i.
 - i. The Permittee shall submit compliance reports to the DAQ on an annual basis. The first report shall cover the period beginning on January 31, 2016 and ending on December 31, 2016. Subsequent annual reports shall cover the periods from January 1 to December 31. The Permittee shall submit the compliance report postmarked on or before January 30 for the preceding reporting period. [§63.7550(a), (b)]
 - ii. This report must also be submitted electronically via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>.) You must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, you may submit an alternate electronic

file consistent with the XML schema listed on the CEDRI Web site (<http://www.epa.gov/ttn/chief/cedri/index.html>), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate address listed in §63.13. You must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. [§63.7550(h)(3)]

- iii. The compliance report must contain the following information:
 - (A) company name and address;
 - (B) process unit information, emissions limitations, and operating parameter limitations;
 - (C) date of report and beginning and ending dates of the reporting period;
 - (D) include the date of the most recent tune-up for each unit required according to Section 2.1 Q.5.f. Include the date of the most recent burner inspection; and
 - (E) statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.[§63.7550(a) and (c), Table 9]
- iv. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the reporting requirements in Sections 2.1 Q.5.i are not met.

2.2 - Multiple Emission Source(s) Specific Limitations and Conditions

A. Facility-wide affected sources

The above emission sources are subject to this multiple emission source limit.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Odors	State-enforceable only Odorous emissions must be controlled	15A NCAC 02D .1806
Toxic air pollutants	State-enforceable only Toxic air pollutant emissions shall not exceed their modeled acceptable ambient levels	15A NCAC 02D .1100
Toxic air pollutants	State-enforceable only A permit shall be required PRIOR to exceeding the representative TPER	15A NCAC 02Q .0711

State-enforceable only

1. 15A NCAC 02D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

- a. The Permittee shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

State-enforceable only

2. 15A NCAC 02D .1100: CONTROL OF TOXIC AIR POLLUTANTS

- a. Pursuant to 15A NCAC 02D .1100 "Control of Toxic Air Pollutants," and in accordance with the approved application for an air toxics compliance demonstration, the following permit limits shall not be exceeded:

Emission Source(s)	Toxic Air Pollutant(s)	Emission Limit(s)
Facility-wide	Hydrogen Sulfide	317.3 lbs/day
Facility-wide	Carbon Disulfide	105.3 lbs/day
Facility-wide	Methyl Mercaptan	1.38 E-1 lbs/hr
Facility-wide	Benzene	174.62 lbs/year

- b. The Permittee has submitted a toxic air pollutant dispersion modeling analysis on March 4, 2016 for the facility's toxic air pollutant emissions as listed in the above table. The modeling analysis was reviewed and approved by the AQAB on March 22, 2016. Placement of the emission sources, configuration of the emission points, and operation of the sources shall be in accordance with the submitted dispersion modeling analysis and should reflect any changes from the original analysis submitted as outlined in the AQAB review memo.

State-enforceable only

3. 15A NCAC 02Q .0711: EMISSION RATES REQUIRING A PERMIT – Pursuant to 15A NCAC 02Q .0711 "Emission Rates Requiring a Permit," for each of the below listed toxic air pollutants (TAPs), the Permittee has made a demonstration that facility-wide actual emissions do not exceed the Toxic Permit Emission Rates (TPERs) listed in 15A NCAC 02D .0711. The facility shall be operated and maintained in such a manner that emissions of any TAPs from the facility, including fugitive emissions, will not exceed TPERs listed in 15A NCAC 02Q .0711.

- a. A permit to emit any of the below listed TAPs shall be required for this facility if actual emissions from all sources will become greater than the corresponding TPERs.
- b. PRIOR to exceeding any of these listed TPERs, the Permittee shall be responsible for obtaining a permit to

emit TAPs and for demonstrating compliance with the requirements of 15A NCAC 02D .1100 “Control of Toxic Air Pollutants”.

- c. In accordance with the approved application, the Permittee shall maintain records of operational information (written or electronic format) demonstrating that the TAP emissions do not exceed the TPERs as listed below:

Pollutant (CAS Number)	TPERs Limitations			
	Carcinogens (lbs/year)	Chronic Toxicants (lbs/day)	Acute Systemic Toxicants (lbs/hour)	Acute Irritants (lbs/hour)
Methylene chloride (75-09-2)	1600		0.39	
Methyl ethyl ketone (78-93-3)		78		22.4
Nickel metal (7440-02-40)		0.13		
Nickel, soluble compounds, as nickel		0.013		
Toluene (108-88-3)		98		14.4
Trichlorofluoromethane (75-69-4)			140	
Xylene (1330-20-7)		57		16.4

B. Three extrusion mix coolers:

- (ID No. ES-1B-1h-02S1SC [System #1 South Cooler]);**
- (ID No. ES-1B-1h-02S2SC [System #2 South Cooler]);**
- (ID No. ES-1B-1h-02S1NC [System #1 North Cooler]);**
- One molding operation (ID No. ES-1B-1h15AS2EH);**
- Three 1000-pound Sigma mixers (ID Nos. ES-1J.1 through ES-1J.3), and**
- One Sigma Blade Mixer (ID No. ES-1L.1) and One rotary cooler (ID No. ES-1L.2),**
- with associated electrostatic precipitator (ID No. CD-1B-02-ESP)**

The above emission sources are subject to this multiple emission source limit.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	Compliance Assurance Monitoring	15A NCAC 02D .0614

1. 15A NCAC 02D .0614: COMPLIANCE ASSURANCE MONITORING

- a. For the above described emission sources, as required by 40 CFR 64 and 15A NCAC 02D .0614, the Permittee shall comply with the following monitoring and recordkeeping requirements for particulate matter, including parameters to be monitored, parameter ranges, and performance criteria.

	Indicator
I. Indicator	Indicator Lights
Measurement Approach	Indicator Light Operation is visually measured daily.

	Indicator
II. Indicator Range	An excursion is defined as a parameter outside of normal (design) specifications. The ESP is equipped with two banks of lights (one light per cell) indicating proper operation while fully illuminated or blinking. Normal operation is established as 12-15 lights per bank active at all times. An excursion is defined as having more than 3 lights per bank not illuminated. Excursions trigger an inspection, corrective action, and a recordkeeping requirement.
QIP Threshold	The QIP threshold is five excursions in a 6-month reporting period.
III. Performance Criteria	
A. Data Representativeness	Measurements are being made at the ESP indicator light panels.
B. Verification of Operational Status	Instruments are checked daily for proper operation.
C. QA/QC Practices	Calibrate, maintain, and operate instrumentation using procedures that take into account manufacturer's specifications.
D. Monitoring Frequency	Measurements are recorded daily.
Data Collection Procedures	Recordings are manually recorded in a logbook daily.
Averaging Periods	NA

Reporting [15A NCAC 02Q .0508(f), 40 CFR 64.9]

- a. The Permittee shall submit a summary report of monitoring activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. The report shall also include the following information, as applicable:
 - i. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - ii. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
 - iii. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

C. Building #2 materials handling operations (ID No. ES-1C) with associated fabric filter (ID No. CD-1C-DC225)

System #2 Milling Process/Material Storage (ID No. ES-1D) consisting of:

- Raw coke handling operations (No. 1F);
- Two bin drawoffs (Nos. BD201 and BD202),
- One conveyor screw (No. CS257),
- One double roll crusher (No. DRC263),
- One hammermill (No. HM260),
- One Rotex elevator (No. RX261),
- One Rotex screen (No. RX262),

**-The exhausts from five weigh scale collection sources (Nos. SC201 through SC205), and
-System #1 and System #2 extrusion mixers (ID Nos. ES-1E.1 and ES-1E.2)
with associated fabric filter (ID No. CD-1D-DC254)**

One stock crushing operation (ID No. ES-1G) with associated fabric filter (ID No. CD-1G-DC220)

**System #1 milling operations (ID No. ES-1E.3),
System #1 weigh car (ID No. ES-1E.4),
System #1 scale bin exhausts (ID No. ES-1E.5), and
Five weigh car collection sources (ID Nos. ES-1E.6 through ES-1E.10)
with associated cartridge-type filter (ID No. CD-02-DFT3-36)**

One steel shot blast electrode cleaning machine (ID No. ES-2A) with associated fabric filter (ID No. CD-2A-DC-5624)

Small-round cleaning operation and media preparation (ID No. ES-2B) with associated fabric filter (ID No. CD-2B-DC427)

Two steel shot blast electrode cleaning operations (ID Nos. ES-2C and ES-2M) with associated cartridge-type fabric filter (ID No. CD-2C-DC425)

Furnace packing media recycling processes (ID No. ES-2F) and Building No. 5 Sagger can unloading station (ID No. ES-2L-DC05) with associated fabric filter (ID No. CD-2F-DC5524)

Graphite Department equipment (ID No. ES-5A) including:

- By-products material bagging machine (No. BYP);**
- One small band saw (No. C16143);**
- One sample grinder (No. C2302);**
- Rail hoods (No. C2304);**
- One large cleaning machine (No. C2315);**
- One bucket elevator (No. C2330);**
- One chip bin hood (No. C2331);**
- One "L" core drill (No. C2346);**
- One "T" core drill (No. C2347);**
- One large band saw (No. C2348);**
- Miscellaneous graphite machining operations (No. MISC) consisting of:**
 - Rahn-Mayer Lathe #2508 (No. 1)**
 - Sirco PA36 Lathe #2574 (No. 2)**
 - Beco Lathe (No. 3)**
 - Gisholt Turret Lathe #2512 (No. 4)**
 - 20" American Tracer Lathe #2533 (No. 5)**
 - 20" American Lathe #2534 (No. 8)**
 - Morris Radial Drill (No. 11)**
 - Cincinnati Milling Machine #2560 (No. 12)**
 - Band Saw (No. 13)**
 - Do-All Band Saw #2506 (No. 14)**
 - Do-All Band Saw (No. 15)**
 - Laidlaw Band Saw #2561 (No. 16), and**
 - DeWalt radial cut-off saw (No. 18)**
 - Two Kingston Lathes (Nos. 19 and 20)**
 - One custom cut-off saw (No. 21)**

with associated fabric filter (ID No. CD-5A-DC2324)

One packing media recycling process line (ID No. ES-5I) with associated fabric filter (ID No. CD-5I-DC2474)

One stock machining and conveying line (ID No. ES-5J) with associated fabric filter (ID No. CD-5J-DC5803)

One LWG media crusher system (ID No. ES-5L) with associated fabric filter (ID No. CD-5L-DC101³)

Graphite finishing operation (ID No. ES-6A) with associated fabric filter (CD-6A-DC1164b)

Carpentry shop woodworking operation (ID No. ES-6B) with associated fabric filter (ID No. CD-6B)

The above emission sources are subject to this multiple emission source limit.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	Compliance Assurance Monitoring	15A NCAC 02D .0614

1. 15A NCAC 02D .0614: COMPLIANCE ASSURANCE MONITORING

- a. For the above described emission sources, as required by 40 CFR 64 and 15A NCAC 02D .0614, the Permittee shall comply with the following monitoring and recordkeeping requirements for particulate matter, including parameters to be monitored, parameter ranges, and performance criteria.

	Indicator
I. Indicator	Pressure drop and/or indicator lights
Measurement Approach	Pressure drop across the fabric filters is measured with differential pressure gauges daily. Indicator Light Operation is visually measured daily.
II. Indicator Range	An excursion is defined as a pressure drop and/or indicator lights other than normal*. Excursions trigger an inspection, corrective action, and a recordkeeping requirement.
QIP Threshold	None selected.
I. Performance Criteria	
A. Data Representativeness	Pressure taps are located at each fabric filter inlet and outlet. The gauge has a minimum accuracy of 0.5 inches of water. Measurements for indicator lights are being made at the control device indicator light panels.
B. Verification of Operational Status	The pressure gauges and indicator light panels are checked daily for operation.
C. QA/QC Practices	Calibrate, maintain, and operate instrumentation using procedures that take into account manufacturer's specifications.
D. Monitoring Frequency	Pressure drop and indicator lights are both recorded daily.
Data Collection Procedures	Recordings are manually recorded in a logbook daily.
Averaging Periods	NA

* "Normal" pressure drop ranges and/or number of indicator lights are as follows:

CD-1C-DC225	1.5 to 5.5 inches of water
CD-1D-DC254	1.2 to 5.2 inches of water
CD-1G-DC220	0.8 to 5.7 inches of water
CD-02-DFT3-36	4 to 8 indicator lights
CD-2A-DC-5624	1-5 inches of water

CD-2B-DC-427	<i>1.5 to 5.5 inches of water</i>
CD-2C-DC425	<i>2.1 to 6.1 inches of water</i>
CD-2F-DC5524	<i>4.7 to 8.7 inches of water</i>
CD-5A0DC2324	<i>0.2 to 4.2 inches of water</i>
CD-5I-DC2474	<i>1 to 4.1 inches of water</i>
CD-5J-DC5803	<i>3 to 7 inches of water</i>
CD-5L-DC101	<i>0.8 to 4.8 inches of water</i>
CD-6A-DC1164	<i>3.6 to 7.6 inches of water</i>
CD-6B	<i>0.3 to 4.3 inches of water</i>

Reporting [15A NCAC 02Q .0508(f), 40 CFR 64.9]

- b. The Permittee shall submit a summary report of monitoring activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. The report shall also include the following information, as applicable:
- i. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - ii. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
 - iii. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

2.3 - Permit Shield for Nonapplicable Requirements

The Permittee is shielded from the following nonapplicable requirements [15A NCAC 02Q .0512(a)(1)(B)].

- A. Provided the Porous Carbon Process and associated controls are properly operated and maintained, 15A NCAC 02Q .0317 for 15A NCAC 02D .0530 (PSD) is not applicable to sources **ES-1M-A and ES-1M-B** because the after-control PM/PM₁₀ emissions will remain under 25/15 tpy.

SECTION 3 - GENERAL CONDITIONS (version 5.5, 08/25/2020)

This section describes terms and conditions applicable to this Title V facility.

A. **General Provisions** [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]

1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 02D and 02Q.
2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

B. **Permit Availability** [15A NCAC 02Q .0507(k) and .0508(i)(9)(B)]

The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environmental Quality upon request.

C. **Severability Clause** [15A NCAC 02Q .0508(i)(2)]

In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. **Submissions** [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]

Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

Supervisor, Stationary Source Compliance
North Carolina Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641

All submittals shall include the facility name and Facility ID number (refer to the cover page of this permit).

E. **Duty to Comply** [15A NCAC 02Q .0508(i)(3)]

The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements

constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. **Circumvention** - STATE ENFORCEABLE ONLY

The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

G. **Permit Modifications**

1. Administrative Permit Amendments [15A NCAC 02Q .0514]
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q.0524 and 02Q .0505.
3. Minor Permit Modifications [15A NCAC 02Q .0515]
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.
4. Significant Permit Modifications [15A NCAC 02Q .0516]
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.
5. Reopening for Cause [15A NCAC 02Q .0517]
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .0517.

H. **Changes Not Requiring Permit Modifications**

1. Reporting Requirements
Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:
 - a. changes in the information submitted in the application;
 - b. changes that modify equipment or processes; or
 - c. changes in the quantity or quality of materials processed.

If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

2. Section 502(b)(10) Changes [15A NCAC 02Q .0523(a)]
 - a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
 - b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
 - i. the changes are not a modification under Title I of the Federal Clean Air Act;
 - ii. the changes do not cause the allowable emissions under the permit to be exceeded;
 - iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
 - iv. the Permittee shall attach the notice to the relevant permit.
 - c. The written notification shall include:
 - i. a description of the change;
 - ii. the date on which the change will occur;
 - iii. any change in emissions; and
 - iv. any permit term or condition that is no longer applicable as a result of the change.
 - d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.

3. Off Permit Changes [15A NCAC 02Q .0523(b)]
The Permittee may make changes in the operation or emissions without revising the permit if:
 - a. the change affects only insignificant activities and the activities remain insignificant after the change; or
 - b. the change is not covered under any applicable requirement.
4. Emissions Trading [15A NCAC 02Q .0523(c)]
To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

I.A. Reporting Requirements for Excess Emissions and Permit Deviations [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]

"Excess Emissions" - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. (*Note: Definitions of excess emissions under 02D .1110 and 02D .1111 shall apply where defined by rule.*)

"Deviations" - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.

Excess Emissions

1. If a source is required to report excess emissions under NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
2. If the source is not subject to NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
 - a. Pursuant to 15A NCAC 02D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
 - i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
 - name and location of the facility;
 - nature and cause of the malfunction or breakdown;
 - time when the malfunction or breakdown is first observed;
 - expected duration; and
 - estimated rate of emissions;
 - ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
 - iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 02D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 02Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
 - a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 02D .0535 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

I.B. Other Requirements under 15A NCAC 02D .0535

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 02D .0535, including 15A NCAC 02D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director, that the excess

emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 02D .0535(c)(1) through (7).

2. 15A NCAC 02D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

J. **Emergency Provisions** [40 CFR 70.6(g)]

The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
 - a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
 - b. the permitted facility was at the time being properly operated;
 - c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
 - d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. **Permit Renewal** [15A NCAC 02Q .0508(e) and 02Q .0513(b)]

This 15A NCAC 02Q .0500 permit is issued for a fixed term not to exceed five years and shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete 15A NCAC 02Q .0500 renewal application is submitted at least six months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 02Q .0512(b)(1), this 15A NCAC 02Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 02Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 02Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 02Q .0400 requirements. In either of these events, all terms and conditions of these permits shall remain in effect until the renewal permits have been issued or denied.

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 02Q .0508(i)(4)]

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. **Duty to Provide Information (submittal of information)** [15A NCAC 02Q .0508(i)(9)]

1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 02Q .0507(f)]

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes

applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 02Q .0508(f) and 02Q .0508 (l)]

The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 02Q .0508(n)]

The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source during the certification period.

Q. **Certification by Responsible Official** [15A NCAC 02Q .0520]

A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. **Permit Shield for Applicable Requirements** [15A NCAC 02Q .0512]

1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
 - a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
 - b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
 - c. the applicable requirements under Title IV; or
 - d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 02Q .0519]

The Director may terminate, modify, or revoke and reissue this permit if:

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. **Insignificant Activities** [15A NCAC 02Q .0503]

Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. **Property Rights** [15A NCAC 02Q .0508(i)(8)]

This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. **Inspection and Entry** [15A NCAC 02Q .0508(l) and NCGS 143-215.3(a)(2)]

1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
 - a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
 - b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
 - c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
 - d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.

2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. **Annual Fee Payment** [15A NCAC 02Q .0508(i)(10)]

1. The Permittee shall pay all fees in accordance with 15A NCAC 02Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environmental Quality. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 02Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 02Q .0207]

The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 02Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

Y. **Confidential Information** [15A NCAC 02Q .0107 and 02Q .0508(i)(9)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 02Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 02Q .0100 and .0300]

A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 02Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History** [15A NCAC 02Q .0507(d)(3)]

The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .0501(d)]

1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

DD. **Prevention of Accidental Releases - Section 112(r)** [15A NCAC 02Q .0508(h)]

If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

EE. **Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) – FEDERALLY-ENFORCEABLE ONLY**

Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.

FF. **Title IV Allowances** [15A NCAC 02Q .0508(i)(1)]

This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

GG. **Air Pollution Emergency Episode** [15A NCAC 02D .0300]

Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 02D .0300.

HH. **Registration of Air Pollution Sources** [15A NCAC 02D .0202]

The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 02D .0202(b).

II. **Ambient Air Quality Standards** [15A NCAC 02D .0501(c)]

In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. **General Emissions Testing and Reporting Requirements** [15A NCAC 02Q .0508(i)(16)]

Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .1110, or .1111 of Subchapter 02D. If emissions testing is required by this permit or the DAQ or

if the Permittee submits emissions testing to the DAQ to demonstrate compliance for emission sources subject to Rules .0524, .1110, or .1111, the Permittee shall provide and submit all notifications, conduct all testing, and submit all test reports in accordance with the requirements of 15A NCAC 02D .0524, .1110, or .1111, as applicable. Otherwise, if emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.
4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.
 - a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:
 - i. Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
 - ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
 - iii. Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
 - b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in Section 02D .2600 has precedence over all other tests.

KK. Reopening for Cause [15A NCAC 02Q .0517]

1. A permit shall be reopened and revised under the following circumstances:
 - a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
 - b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
 - c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
 - d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 02Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 02Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.

4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

LL. Reporting Requirements for Non-Operating Equipment [15A NCAC 02Q .0508(i)(16)]

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. When permitted equipment is not in operation, the requirements for testing, monitoring, and recordkeeping are suspended until operation resumes.

MM. Fugitive Dust Control Requirement [15A NCAC 02D .0540]

As required by 15A NCAC 02D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas, stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

NN. Specific Permit Modifications [15A NCAC 02Q .0501 and .0523]

1. For modifications made pursuant to 15A NCAC 02Q .0501(b)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 02Q .0501(c)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth Street SW, Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
 - a. a description of the change at the facility;
 - b. the date on which the change will occur;
 - c. any change in emissions; and
 - d. any permit term or condition that is no longer applicable as a result of the change.

In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

OO. Third Party Participation and EPA Review [15A NCAC 02Q .0521, .0522 and .0525(7)]

For permits modifications subject to 45-day review by the federal Environmental Protection Agency (EPA), EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 02Q .0518 begins at the end of the 45-day EPA review period.

ATTACHMENT

List of Acronyms

AOS	Alternative Operating Scenario
BACT	Best Available Control Technology
BAE	Baseline Actual Emissions
Btu	British thermal unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
CSAPR	Cross-State Air Pollution Rule
DAQ	Division of Air Quality
DEQ	Department of Environmental Quality
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
GHGs	Greenhouse Gases
HAP	Hazardous Air Pollutant
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
NAA	Non-Attainment Area
NAAQS	National Ambient Air Quality Standards
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standard
NSR	New Source Review
OAH	Office of Administrative Hearings
PAE	Projected Actual Emissions
PAL	Plantwide Applicability Limitation
PM	Particulate Matter
PM_{2.5}	Particulate Matter with Nominal Aerodynamic Diameter of 2.5 Micrometers or Less
PM₁₀	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO₂	Sulfur Dioxide
TAP	Toxic Air Pollutant
tpy	Tons Per Year
VOC	Volatile Organic Compound